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LONGITUDINAL CAREER DATA FOR SELECTED COHORTS
OF MEN AND WOMEN IN THE PUBLIC SERVICE,
1978-1987

by

Garnett Picot and Ted Wannell

No. 29

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Business and Labour Market Analysis Group
Analytical Studies Branch
Statistics Canada
1990

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on Barriers to Women in the Public Service
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The analysis presented in this paper is the responsibility of the authors and does not necessarily represent the views or policies of Statistics Canada.

Aussi disponible en français.

ABSTRACT

This paper provides basic facts on the exit and promotion patterns of men and women in the public service. This information was produced for the Task Force and the Barriers to Women in the Canadian Public Service. A special longitudinal data file of public service employees was created for this project, and selected cohorts of public servants followed over the 1978 - 87 period. It is found that women do exit from the public service at a slightly higher rate than men among the low to intermediate occupational levels. This exit is not likely associated with better employment opportunities outside the P.S. as was thought possible, however, since the earning of women staying in the public service increased faster than those of women leaving. Regarding the rate of advancement (as measured by promotions and pay increases), among those starting in the clerical group (where 42% of women work), men advanced slightly more quickly than women. Among the professional and administrative cohorts, there was little difference between men and women in the rate of advancement during this period. Among those reaching senior management levels (SM and EX), women advanced more quickly over this period. The senior management category accounts for only 0.6% and 3.5% of women and men respectively.

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Longitudinal Career Data for Selected Cohorts of Men and Women in the Public Service

Introduction

Statistics Canada was asked by the Task Force on Barriers to Women in the Public Service to develop and analyze longitudinal information on the career paths of men and women in the Public Service. Within the short period of time available, a file has been created and some analysis conducted.

The objective is to provide some statistical information which is indicative of the career advancement of men and women in selected groups over the 1978-87 period. When combined with information from other sources, such data should provide the Task Force members with a better understanding of recent movement in the Public Service. The report focuses on events which are of interest to the task force and which can be best analyzed using longitudinal data, notably the rate of advancement and exit patterns of men and women in selected cohorts. It does not provide any analysis of issues such as the concentration of women in particular occupations (e.g. clerical), the current levels at which women within various occupational groups work, and whether women "caught up" to their male counterparts in various occupations.

The emphasis here is on the narrower questions of rate of advancement and exit patterns. Hence, this report focuses on the differences between men and women in their movement (or flows) over time, not the differences in the number of men and women in a particular group and level at any point in time (i.e., stocks). Often significant differences in movement or flows among groups may not have a major impact on the stocks or level in the groups for some time. Measures of advancement and movement among groups do provide valuable information regarding current trends, however, which are often missed when comparing total numbers in a particular group between two time points (i.e., stock counts).

The longitudinal file used in this work has been constructed for selected cohorts of public servants for the period 1978 to 1987 inclusive. The file was created by combining data from Treasury Board's "incumbent" file and Revenue Canada files containing information on annual employment earnings. Information on the same individual over the ten years is made available

in this way, and an analysis of the career paths of groups of individuals in the selected cohorts can be calculated. The cohorts were selected from the population of employees covered by Schedule 1, Part 1 of the Public Service Staff Relations Act.¹

The data are used to examine the career achievement of women and men in the selected cohorts. Of particular interest is:

- . At what rate did women and men exit permanently from the public service over the ten year period, and how did the earnings of those who exited compare with those who stayed?
- . For those in the cohorts who stayed in the Public Service over the entire ten years, what was the rate of career advancement of men and women? This is analyzed by measuring:
 - change in the pay rate in the jobs held over the period
 - movement up a specially constructed promotions scale
 - group and level achieved by the cohort at the end of the period
- . For those who had achieved the higher managerial levels by 1987 (SM & EX), how quickly did the men and women advance and from which groups did they come?

As well, an analysis of change in the more recent past (1982-87) was conducted focusing mainly on scientific and professional groups. This was done to get more information on the career advancement of middle to upper level professional groups than was possible in the 1978 cohorts because of the very small number of women.

To produce such information specific cohorts were selected and their career movements analyzed. Due to the short time available for file construction and analysis it was decided that a broad and sweeping analysis of the career advancement and exit patterns of public servants in general could not be conducted. Rather, specific cohorts were selected and their career paths examined.

¹ The post-office was excluded, since it moved out of the source population during the period of analysis.

Summary of Findings

The analysis focuses on the career advancement of women and their rate of exit from the Public Service. Comparisons of these patterns with those of males who started the period in the same group and level, at the same age and often with the same number of years of public service experience are made. The information necessary to ensure that the male and female cohorts had the same level of education was not available, but educational backgrounds within the occupational groups are similar. Cohorts (i.e., groups) based in three different years were followed longitudinally. First, persons working full-time in 1978 were selected in twelve cohorts ranging from CR2 to ES5 and their career advancement over the following ten years determined. Eight cohorts based in 1982 were chosen for an analysis covering the 1982 to 1987 period, and finally four cohorts of managers (i.e., SM and EX) were selected for 1987, and a retrospective view of their career advancement during the preceding ten years developed.

This analysis is indicative of the rate of career advancement and exit patterns of men and women in occupational groups of interest. Since selected cohorts are used, the analysis is not necessarily representative of the experience of all public servants.

The 1978 Cohorts Covering the 1978-87 Period

Among the selected 1978 cohorts:

- Women generally exited permanently from the public service at a higher rate than men, particularly among the younger cohorts with low to intermediate pay levels. Most exits occurred in the early part of the period (1978-82). Due to small samples, information on exits from the higher paying groups and levels was not available.
- There was some interest in determining if exits to higher paying opportunities outside played a major role, but this is not likely the case since among those with employment earnings in both 1978 and 1987, female leavers generally had lower growth in annual earnings over the period than did female stayers; the picture was somewhat more mixed for male leavers and stayers. These results refer mainly to low to intermediate level groups (e.g. CR2 to ES3).
- Among stayers (people in the public service all ten years) the majority remained in the same occupational group throughout the period.

- Among people in the CR and other lower paying cohorts in 1978 included in this analysis, men moved up the ranks faster than women. In terms of numbers, these are very important groups for women since 42% of all public service women are in the CR group, and 60% are in the administrative support category which includes CRs (compared to 8% of men).
- Among the intermediate level (middle paying) AS, PM and ES cohorts, there was little difference in the rate of advancement between men and women as indicated by growth in pay rate and average number of promotions.

The 1982 Cohorts Covering the 1982-87 Period

Among the selected 1982 cohorts:

- There was little difference between the proportion of men and women exiting permanently from the mainly professional and administrative cohorts selected for this period.
- Among stayers (in the public service the entire period) most were still in the same group and level at the end of period as the beginning.
- Among the professional (ES, BI and AU) and the administrative (AS and PM) cohorts included in this analysis men and women had approximately the same rate of career advancement as indicated by growth in pay. It should be noted that the total scientific and professional group from which the above cohorts were selected employs relatively few female public servants (6% or 4,900 compared to 14% of men or 16,500). The administrative and foreign service groups employ about one-quarter of all female public servants.
- As with the 1978 cohorts, among employees in the CR cohort in 1982, the rate of pay of men rose more quickly than that of women, suggesting somewhat more rapid advancement for men.

The 1987 Managerial Cohorts Looking Back Ten Years

Among the selected 1987 cohorts of SM and EX managers:

- Women reaching these levels were more likely to have entered (or re-entered after at least a two year absence) the public service after 1980 than their male counterparts. This may be true for other occupations groups as well, but data were not readily available to test this.
- Among the entrants (or re-entrants) from outside the Public Service to the management groups in 1987, earnings data from 1978 indicate a larger proportion of women than men were not in paid employment that year, and among those in paid employment more women than men had low earnings, (suggesting part-time work, or other activities such as child care or education).
- A very wide range of occupational groups served as sources of the 1987 managers, but PM, FS and ES stood out for men, and PM, AS and PE for women.
- Among the stayers (in the public service all ten years) who achieved a management position, women moved up the ranks faster than men as indicated by growth in pay rate and number of promotions, particularly among those reaching the EX group.
- These findings regarding movement into the management group are important because this category is near the top of the occupational ladder (as measured by pay) and it is of interest to determine the rate at which people are achieving it. However, it is also important to observe that these findings refer to an extremely small group. The management category includes only 0.6% of females (or approximately 500) and 3.5% of male public servants (approximately 4,000).

Selecting the Cohorts

- 1) Groups of cohorts based in three different years were selected:
 - a) Persons working full-time in 1978 were selected, and their career advancement over the following nine years to 1987 determined;
 - b) Persons working full-time in 1982 were selected, and their movements during the following five years were examined.²
 - c) A group of cohorts in the SM and EX groups in 1987 was selected, and their career advancement over the preceding nine years analyzed.
- 2) The cohorts were selected based on group, level, age, and in some cases, years of experience in the public service. Groups were selected to be indicative of the administrative, administrative support, professional and management categories. Cohorts in the CR, AS, PM, ES, SM and EX groups were primarily used in the analysis, although some other smaller professional groups were included in 1982 cohorts.

The objective in selecting the cohorts was to obtain groups of men and women which were as similar and as homogeneous as possible, given the information available. Since age is often a good proxy for work experience and speed of career advancement (given a particular group and level), relatively narrow age bands were used (usually five years). In some cases an upper age limit was used. For example, among EX's only persons up to age 49 were selected. This was done for two reasons. First, since we were looking back to determine the path to the EX group, we wanted to select persons who likely entered the group in the recent past, and hence had some movement over the previous 10 years. Second, although 40% of male EX's were 50 or over, only 17% of female EXs fell in this category. Hence, in order to analyze comparable groups of male and female EX's (relatively young, who may have entered in the recent past), the age 49 cutoff was selected.

² As mentioned, the focus here was on the professional groups, for which the sample size was often too small in the 1978 cohorts. This part of the project was conducted last, and there was not time to combine the "incumbents" and Revenue Canada data sources. Hence, only the T.B. incumbents data were used.

- 3) It was necessary to select only groups which had sufficiently large numbers of women to allow some analysis when controlling for level and age, and this led to problems in the scientific and professional areas:

In 1978, only 4,600 women (or 6% of all women in the Public Service population) were in professional/technical occupations, compared to 17,600 men (or 14% of all men). Furthermore, almost half those women (46%) were in nursing and education groups, which do not normally feed higher level public service positions, and hence are not good candidates for this analysis.³ The remaining one-half of the women were distributed among a large number of very small professional groups (chart 1). Only the ES group had a reasonably large number of women, and they were concentrated in the lower levels. Hence, the upper levels in the professional groups, which among men often feed senior management positions, are not well represented in this analysis due to the very small numbers of women in them. Thus, while ES cohorts are included, the analysis of the 1978 cohorts focuses more on the AS and PM groups, which contain more women and from which many women advance to senior levels. The CR group is also included in the analysis, since more women work as CRs than in any other classification.

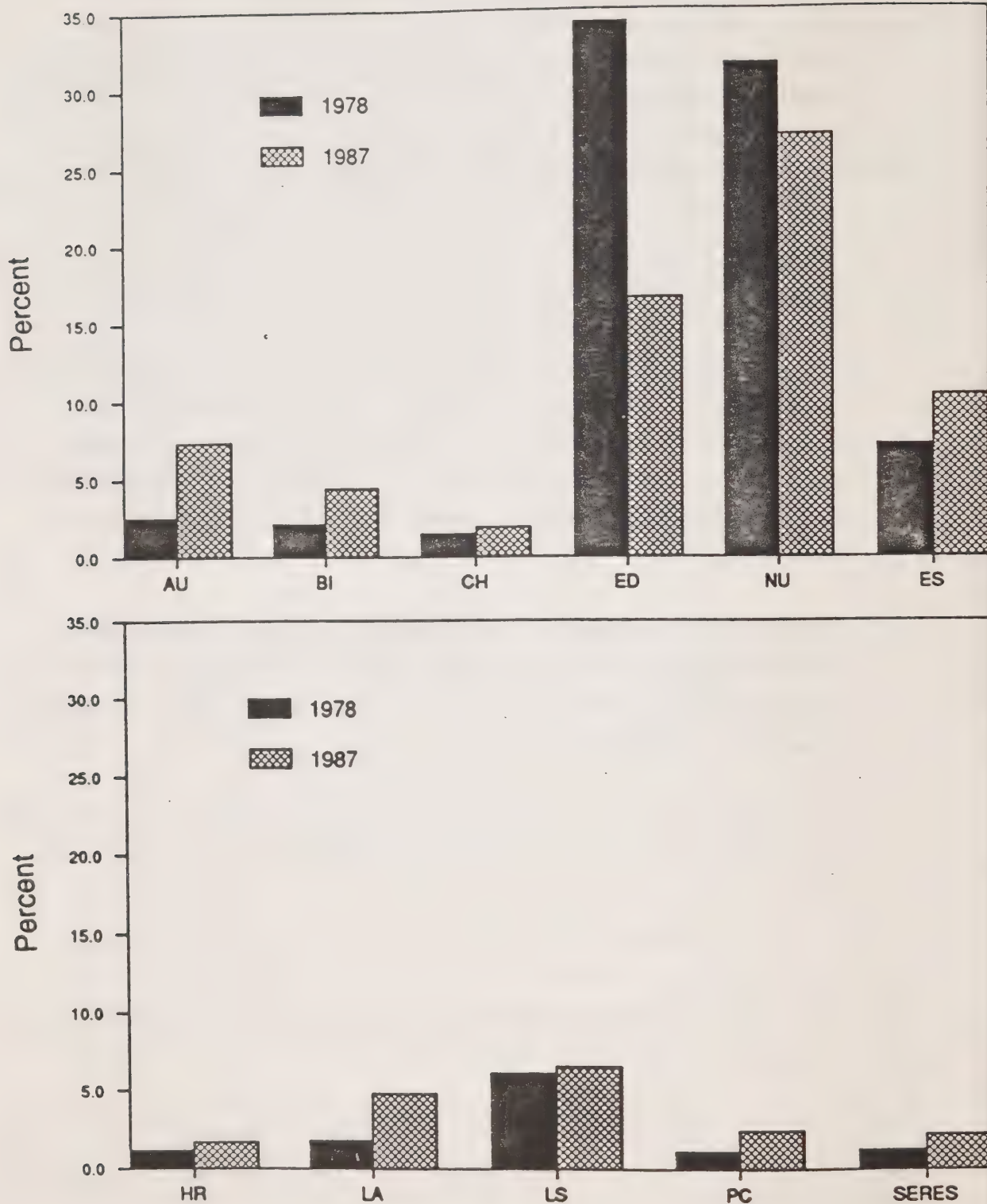
The 1982 cohorts were selected to reflect the emerging role of women in many professional groups, and to obtain samples large enough to provide useful results. To do this all women in a particular group or level were selected for the analysis, not just those in a particular age group.⁴

In the end, twelve cohorts of workers in the Public Service in 1978 were selected and their advancement over the nine year period to 1987 analyzed. In addition, seven

³ This situation had changed somewhat by 1987. The number of women in the scientific and professional area was about the same as in 1978, but only one-quarter of them were in nursing and education; the remainder distributed among groups which are more likely to lead to management positions.

⁴ The ages of men and women within particular groups and levels in the professional area varies considerably with women being generally younger. Age is of course a major factor in career and salary advancement, with more movement among the young. To control for age differences, balanced samples by age were selected within a group and level. That is, all women in a group and level were selected, and an equal number of men were randomly chosen from within five year age groups such that the age distribution of the men and women selected were the same. Revenue Canada data could not be used in the 1982 cohort analysis due to time constraints.

**Chart 1: Percent Distribution of Women
in the Professional Category,
by Individual Groups, 1978 and 1987**



cohorts of mainly professional workers in 1982 were selected for analysis in the 1982-87 period, as were four cohorts of managers in 1987. Cohorts were selected to maximize the number of women but still maintain a homogeneous group.

Cohorts Selected

Group and Level 1978 Cohorts	Age in Base Year	YRS. Of P.S. Experience in Base Year	Number	
			M	F
CR 2	20-24	0-1	238	751
CR 4	25-29	4-7	535	1,390
CR 5	30-34	4-7	149	221
AS 2	25-29	All	162	174
AS 3	30-34	All	162	93
AS 3	35-39	All	118	63
PM 1	20-24	0-2	119	141
PM 2	25-29	4-7	452	398
PM 3	30-34	4-7	388	87
PM 5	35-39	All	206	22
ES 3	25-29	All	71	48
ES 5	30-34	All	243	29
1982 Cohorts				
ES-04	All	All	87	87
ES-05	All	All	97	97
BI-02	All	All	60	60
AU-01	All	All	91	91
AS-03	All	All	712	712
PM-03	All	All	1,004	1,004
PM-04	All	All	518	518
CR-04	All	All	3,885	3,885
1987 Cohorts				
SM -	30-39	All	221	81
SM -	40-44	All	416	80
EX 1	30-49	All	517	77
EX 2	39-49	All	401	55

A Methodological Note

To provide an overview of the findings, unweighted averages of proportions or percent changes across all cohorts are often used. This approach gives the data for each cohort an equal

weight in the overall findings. Since this is not a representative sample of public servants - rather a set of indicative groups - it did not seem appropriate to weight the result by the size of the cohort

Secondly, dollar values for all years have been converted to constant 1987 dollars, so the effect of inflation on earnings has been removed. Change in real earnings are reported in all cases.

Findings for the 1978 Cohorts

Exits From the Public Service

- Taking the cohorts together, women exited permanently⁵ from the public service at a higher rate than men over the ten year period⁶ (chart 2). These results apply mainly to cohorts whose members were under 35 in 1978 and who were earning under \$40,000 in that year (in 1987 dollars). These are the areas in which the majority of female public servants are employed. There were not sufficient numbers of leavers from older cohorts of higher earners to produce reliable results. Averaged over the nine cohorts in the CR, AS and PM (to PM-3) levels the proportion of the cohort leaving permanently was 22% for women, and 17% for men (table 1). Child care could have been associated with this difference, but that is not known from these data.
- Although reliable estimates of the permanent exits are not available for the older women in the upper levels of the groups, for the ES-3 cohort (age 25-29 in 1978) the proportion of the cohort exiting permanently was about the same for men (22%) and women (25%) (the difference was not statistically significant).
- Most of the exits took place during the first few years of the 1978 to 1987 period. Of all the exits, from 70% to 80% of them (depending on the cohort) occurred during the 1979 to 1982 period, with only 20% to 30% occurring between 1983 and 1986. There are two reasons for this. First, the exit rate dropped during the post 1982 period because of the impact of the recession on job availability outside the public service. Second, as the cohorts age and acquire more years of experience in the public service, their probability of leaving falls. Together this means that most of the observations on the exits refer to exits during the early part of the period.

⁵ Permanently means the individual had left the public service during some time up to and including 1984, and had not returned by 1987. Exits in 1985 or later were excluded since it was not possible to determine if they would return in a reasonable period of time (i.e., 2 years). Hence, permanently means out of the public service for at least 3 years. A knowledge of each person's status as of year end (end of December) was available in this analysis. If the person was on active status (i.e., being paid) as of year end that individual was considered in the public service for that year. People on leave without pay or maternity leave as of year end were considered out of the P.S. at that particular point in time.

⁶ Although when taken alone many of the cohorts did not display a statistically significant difference due to the small size of the population.

Chart 2: Percent of Cohort
 Leaving Public Service Permanently,
 up to 1984

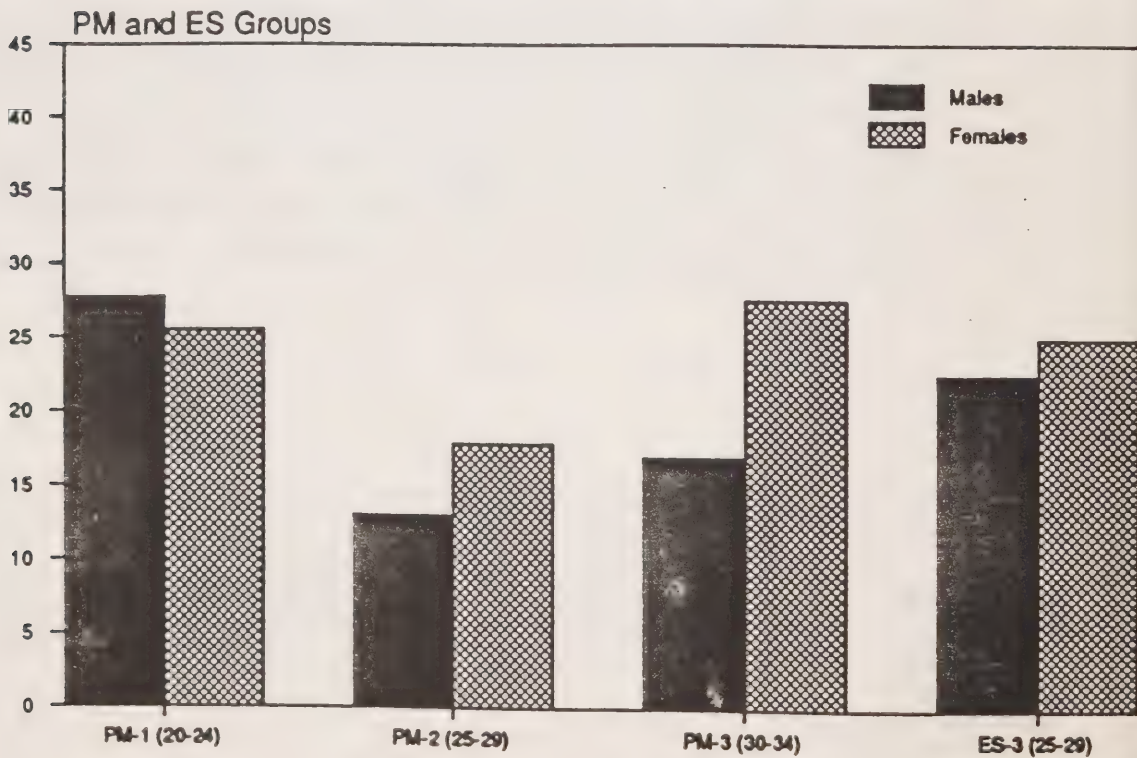
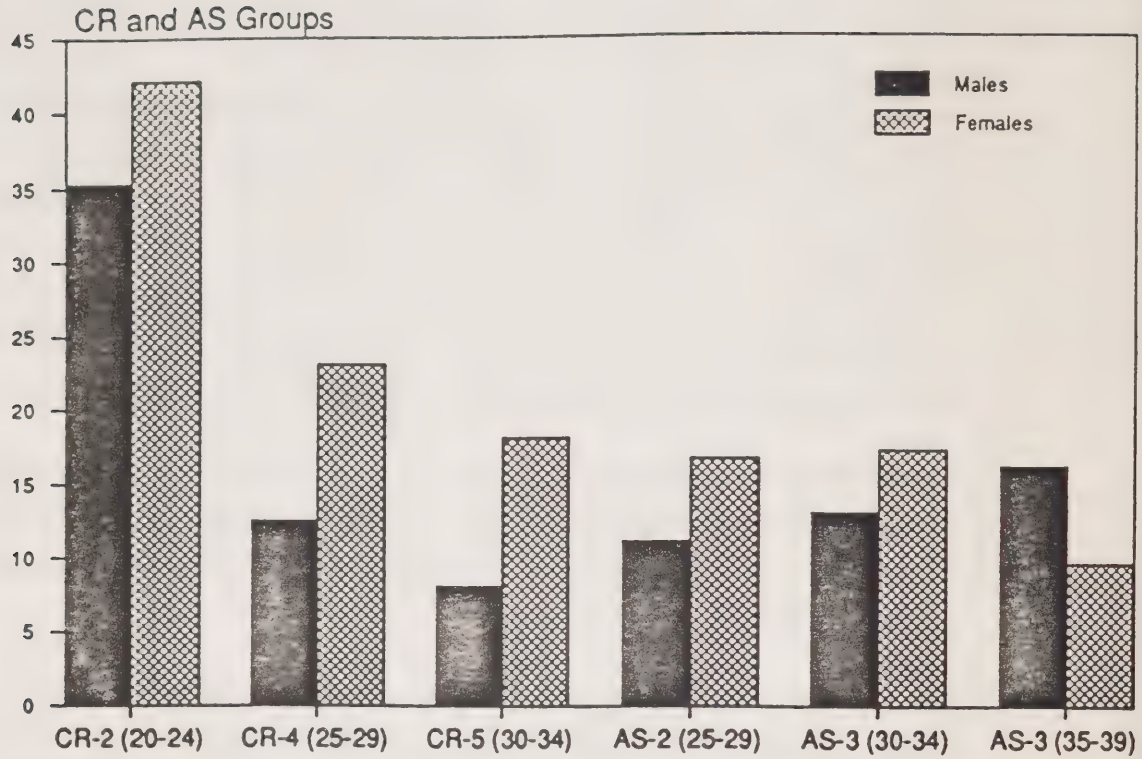


Table 1. Proportion of the 1978 Cohort Exiting Permanently from the Public Service Over the 1978-87 Period

1978 Cohort	Male		Female		Ratio F/M Percent Exiting
	Percent Exiting	Number Exiting	Percent Exiting	Number Exiting	
CR-02 20-24 (0-1 yr exp.)	35 (1)	84	42 (1)	317	1.20
CR-04 25-29 (4-7 yrs exp.)	12	67	23	321	1.92 *
CR-05 30-34 (4-7 yrs exp.)	8	12	18	40	2.25 *
CS-02 25-29	11	18	16	29	1.45
CS-03 30-34	13	21	17	16	1.31
CS-03 35-39	16	19	10	6	0.63
MS-01 20-24 (0-2 yrs exp.)	28	33	26	36	0.93
MS-02 25-29 (4-7 yrs exp.)	13	59	18	71	1.38
MS-03 30-34 (4-7 yrs exp.)	17	66	27	24	1.59 *
MS-05 35-39	14	28	-	-	-
SS-03 25-29	22	16	25	12	1.14
SS-05 30-34	19	47	-	-	-

Indicates statistically significant difference between the percent exiting.

- 1) The very high proportion leaving in this cohort may be in part caused by the classification of the permanent employees. In 1978, a few temporary employees were incorrectly coded as permanent (indeterminant), and this might influence the results in the CR-02 levels where many terms would have been employed.

There was some interest in knowing whether higher paying jobs outside the public service played a major role in exits. This analysis looks at salary gains over the entire period to shed some light on this. The results suggest it was unlikely that movement to a full-time job paying a much higher salary over a long period was the main motivation for leaving the Public Service. Among women the permanent leavers had lower average growth in annual employment earnings between 1978 and 1987 than did the stayers.⁷ This held for all cohorts, although not all differences were statistically significant. The unweighted average growth in earnings in the nine cohorts for which data were available was -8% for leavers and +18% for stayers. There was significant variation among cohorts (table 2).

Among men, the results were mixed; in the CR and AS cohorts the stayers have a higher average annual increase in earnings than the leavers. Among the PM and ES cohorts the results were mixed, in about half the cases the leavers had a higher average annual increase over the period than the stayers (table 2).

Averages can be misleading. There may have been some leavers who did very much better than any stayers, but here their numbers are not large. The distribution of growth in earnings in charts 3 to 6 show that among women only a marginally higher share of leavers than stayers registered very large increases (over 50%) during the 78-87 period. This is determined by examining the right hand tail of the distributions.⁸ Roughly the same holds for men, although there are perhaps a few more leavers than stayers who do very well. But there is a much higher share of women leavers with very small growth in earnings than is true for stayers (the left hand side of the distribution). Thus, among women, stayers did better than leavers. The distributions also indicate that the range of growth in earnings was much wider among leavers than stayers. Stayers tended to do about the same, whereas there was a much broader distribution of outcomes for leavers, which would be expected since they would move on to a wide range of activities.

Career Paths Among the Stayers

⁷ Only leavers who had significant (>\$2000) annual earnings in 1987 were included in the calculation. Those with little or no earnings were excluded, since by definition all stayers had employment earnings in 1987. As well, persons with temporary interruptions from the public service, but who were in the P.S. in 1987 were included as stayers. Hence, both leavers and stayers could have had periods of no earnings over the nine years.

⁸ Distributions were produced for two sets of cohorts: those with low earnings in 1978 (CR2, CR4, CR5 and PM1) and those with intermediate earnings (PM2 & 3, AS3, ES3).

Table 2. Average Percentage Change in Average Employment Earnings Between 1978 and 1987, Leavers and Stayers, Constant Dollars, 1978-87

1978 Cohort	Male				Female			
	Leavers (1)		Stayers (2)		Leavers (1)		Stayers (2)	
	%	No.	%	No.	%	No.	%	No.
CR-02 20-24 (0-1 yr exp.)	38 *	63	74 *	142	4 *	174	41 *	369
CR-04 25-29 (4-7 yrs exp.)	3 *	40	26 *	418	-21 *	160	15 *	933
CR-05 30-34 (4-7 yrs exp.)	-20 *	8	19 *	123	-38 *	16	15 *	155
AS-02 25-29	21	12	24	131	0	12	13	124
AS-03 30-34	8	11	13	130	1	6	20	63
AS-03 35-39	-2	10	9	88	-	-	7	46
PM-01 20-24 (0-2 yrs exp.)	34 *	24	54 *	79	-16 *	22	25 *	89
PM-02 25-29 (4-7 yrs exp.)	15	36	15	361	0	40	10	278
PM-03 30-34 (4-7 yrs exp.)	20	43	15	297	-3	10	15	58
PM-05 35-39	4	13	15	150	-	-	21	19
BS-03 25-29	41	13	35	50	0	5	21	29
BS-05 30-34	-6	30	4	168	-	-	4	23

* indicates the differences were significant at the .05 level.

- (1) LEAVERS include persons who were in the cohort in 1978 and had permanently exited by 1985 (i.e. left prior to 1985 and had not returned by 1987) and had more than \$2,000 employment earnings in 1987. Persons with little employment earnings were excluded from the calculation.
- (2) STAYERS include persons who were in the cohort in 1978 and were in the public service in 1987, although very few had left and returned by 1987.

Chart 4

DISTRIBUTION OF 1978-87 GROWTH IN ANNUAL EARNINGS, STAYERS VS. LEAVERS

1978 STATUS: CR-2 CR-4 CR-5 AS-2 AND PH-1 MALES
THOSE WITH LESS THAN \$2000 '74 EARNINGS EXCLUDED

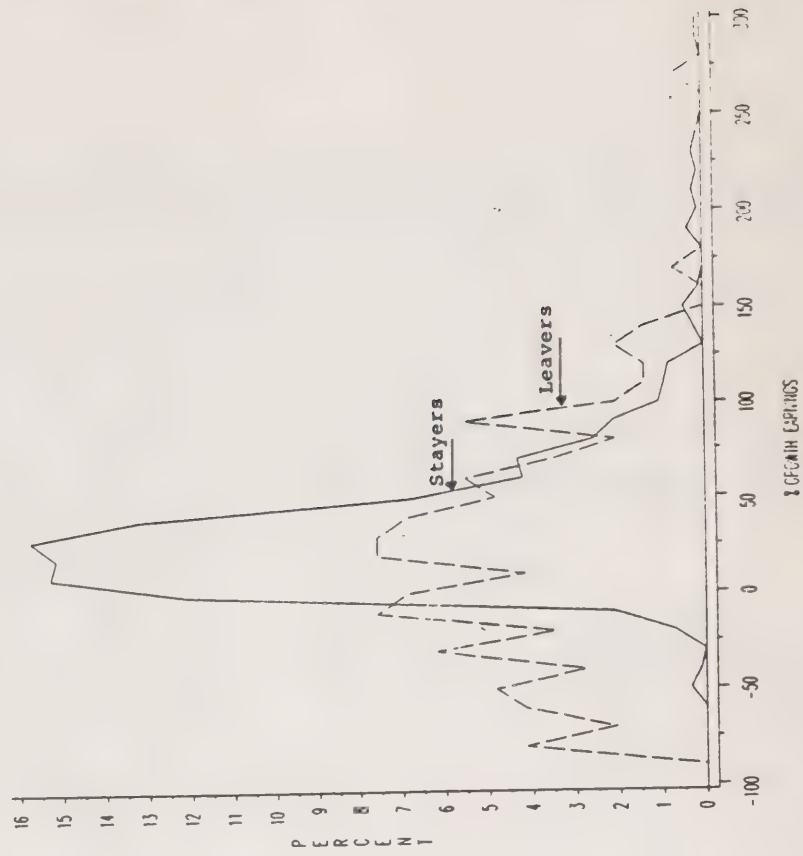


Chart 3

DISTRIBUTION OF 1978-87 GROWTH IN ANNUAL EARNINGS, STAYERS VS. LEAVERS

1978 STATUS: AS-3 PH-2 PH-3 PH-5 BS-3 AND BS-5 MALES
THOSE WITH LESS THAN \$2000 '74 EARNINGS EXCLUDED

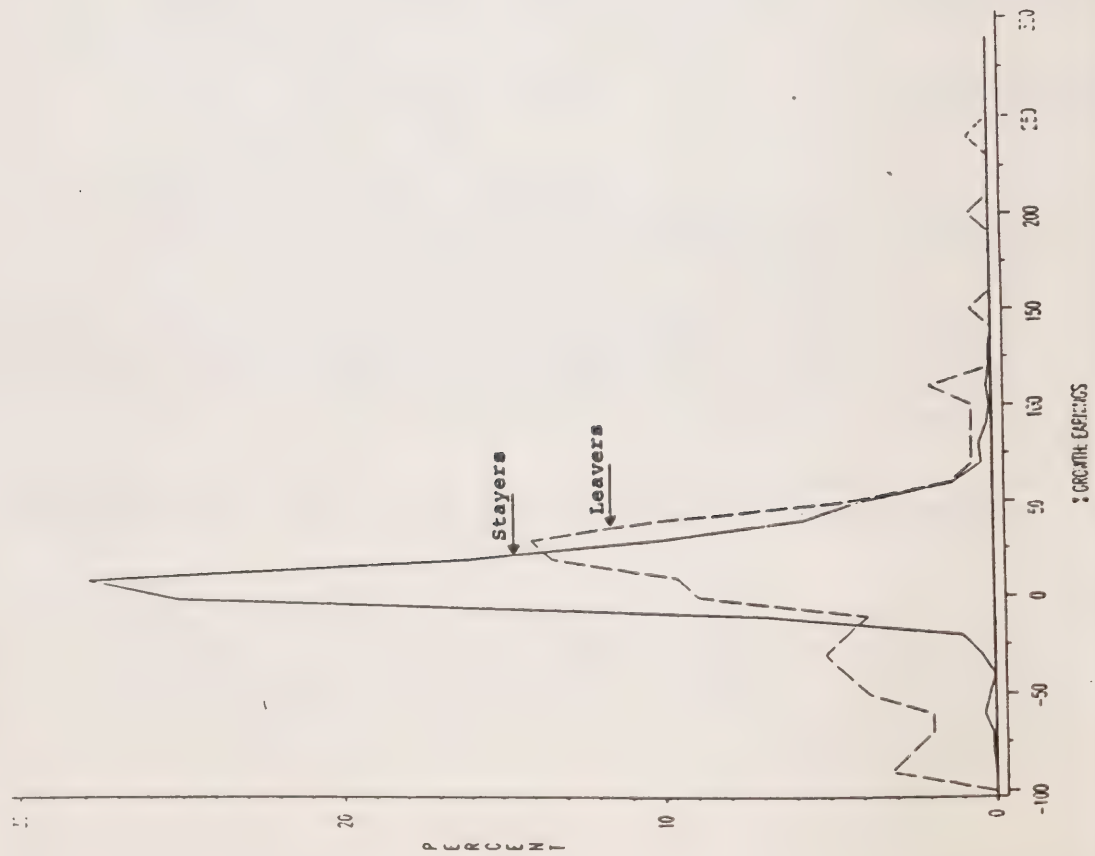


Chart 5

DISTRIBUTION OF 1978-87 GROWTH IN ANNUAL EARNINGS, STAYERS VS. LEAVERS

1978 STATUS: AS-3 PH-2 PH-3 PH-5 BS-3 AND BS-5 FEMALES
THOSE WITH LESS THAN \$2000 '74 EARNINGS EXCLUDED

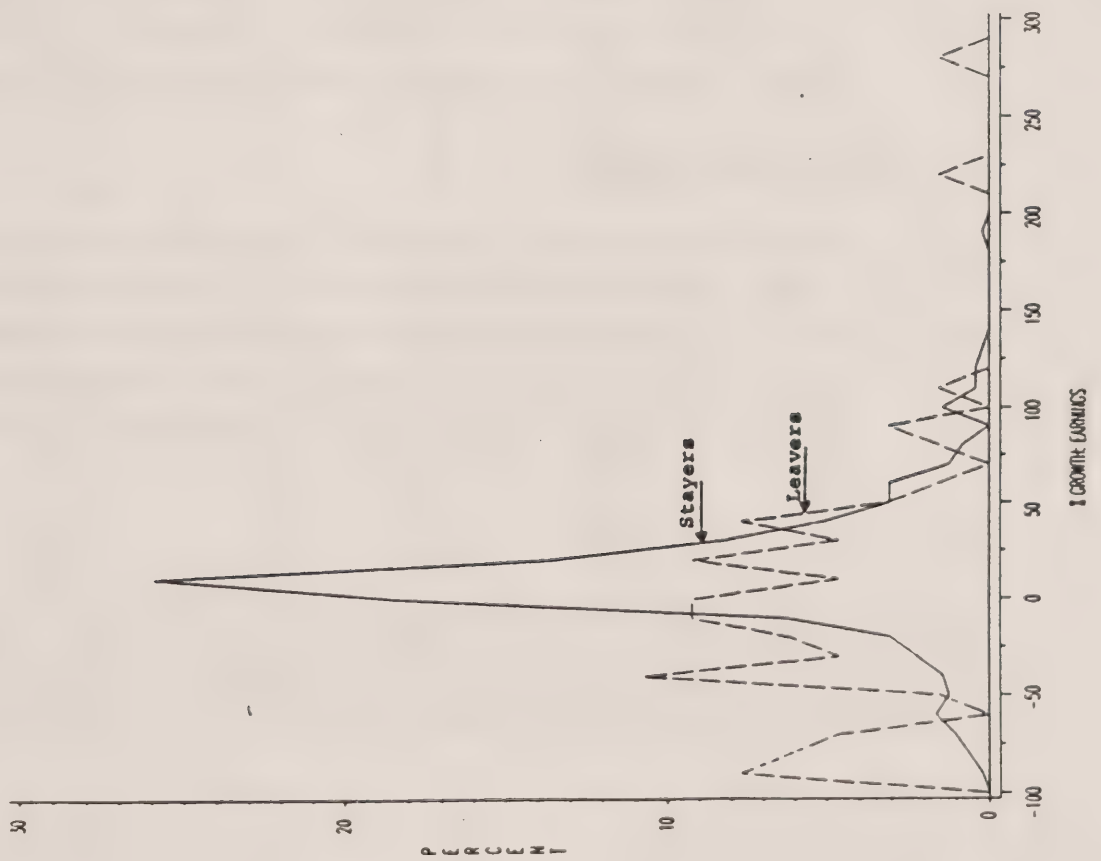
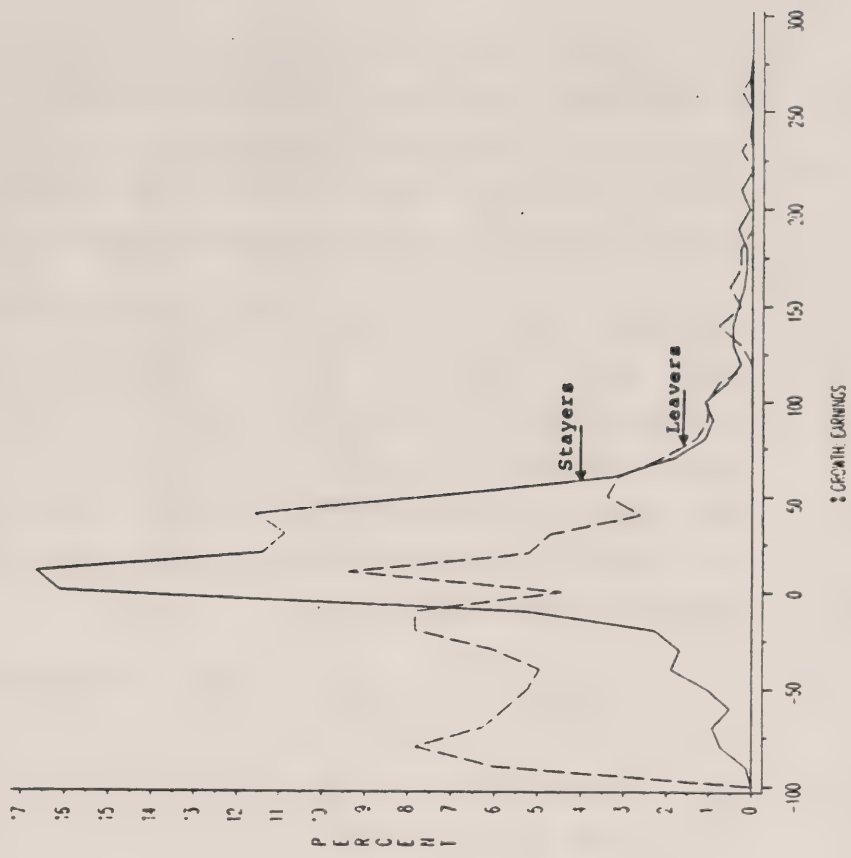


Chart 6

DISTRIBUTION OF 1978-87 GROWTH IN ANNUAL EARNINGS, STAYERS VS. LEAVERS

1978 STATUS: CR-2 CR-4 CR-5 AS-2 AND PH-1 FEMALES
THOSE WITH LESS THAN \$2000 '74 EARNINGS EXCLUDED



Not surprisingly, most public servants in the selected cohorts employed in government in 1978 remained in government each year through to 1987. Seventy-eight percent of men and 72% of women across the twelve cohorts fell into this group of "stayers". There was significant variation by cohort.

Among both men and women, a relatively large proportion of stayers (persons in the Public Service in all ten years) were still in the same group nine years later, either at the same or higher level. The proportion of stayers in the same group at the end of the period varied from 80% among entry-level female CRs (i.e., CR2s 20-24) to a level of 38% among more senior male CRs (CR5 30-34) (table 3). The unweighted average across all twelve 1978 cohorts of the proportion in the same group 10 years later were: females 64%, males 64%.

Movement among groups seemed to increase for women relative to men, over the period. During the middle 1980s (1982-87) women changed groups more often than men in the majority of the cohorts (8 out of 12), while during the earlier period (1978-82) the opposite was generally the case (men changed groups more often in 9 of the 12 cohorts). To determine this, the nine year period was split in two, and the average number of moves (among groups) per person calculated (table 4). Among the more senior groups (PM3, 5 and ES3, 5) the movement by women was generally greater than for men over the entire period, while among the groups with lower earnings, there seemed to be some difference between the 1978-82 and 1982-87 periods, with women changing groups more often than men between 1982 and 1985.

Growth in Pay Among Stayers

Using equivalent earnings⁹ - which is a measure of the pay rate in a job as of year end - among the younger cohorts with the lower pay levels in 1978 (e.g., CR cohorts, AS2, PM1), the pay rate generally rose more quickly over the period for men than women (chart 7). The unweighted average annual increase in pay rate over the period (in constant dollars) in these five cohorts was 26% for men and 20% for women.

⁹ Equivalent annual earnings are the earnings which one would receive if the incumbent worked at the job held as of the end of December for the full-year, full-time. Hence, it is a measure of the pay rate at a point in time, not actual annual earnings. This is an appropriate measure for this work, since it is an indicator of the level achieved by a certain period, and is not affected by changes in jobs during the year, short work absences, or other factors influencing actual annual earnings besides wage rates.

Table 3. 1987 Destination of Persons Who Stayed in the Public Service
Over All 10 Years, 1978 Cohorts

1978 Cohort	1987 Destination	Male	Number	1987 Destination	Female	Number
CR-02 20-24	CR4	21.1	28	CR3	30.8	107
	CR3	15.8	21	CR4	29.1	101
	CR2	14.3	19	CR2	12.7	44
	CR5	10.5	14	CR5	7.5	26
	PM2	10.5	14	PM1	5.2	18
	PM1	6.8	9	OTHER	14.7	51
	OTHER	21.0	28			
		100.0	133		100.0	347
Stayed in CR group		62.4	83		80.4	279
CR-04 25-29	CR4	30.2	133	CR4	44.9	417
	CR5	15.5	68	CR5	13.1	122
	PM2	8.6	38	PM1	7.3	68
	AS2	6.4	28	PM2	5.8	54
	PM1	5.9	26	OTHER	28.9	268
	OTHER	33.4	147			
		100.0	440		100.0	929
Stayed in CR group		47.7	210		60.2	559
CR-05 34-34	CR5	33.3	44	CR5	36.8	61
	PM2	21.2	28	PM2	19.3	32
	AS2	6.1	8	CR4	7.8	13
	AS3	5.3	7	AS2	5.4	9
	OTHER	34.1	45	OTHER	30.7	51
		100.0	132		100.0	166
Stayed in CR group		38.6	51		47.6	79
AS-02 25-29	AS3	17.7	24	AS3	21.5	26
	AS4	16.2	22	AS2	14.1	17
	AS5	10.3	14	AS4	10.7	13
	AS2	9.6	13	AS5	9.9	12
	AS6	7.4	10	PM4	5.8	7
	PE3	5.2	7	OTHER	38.0	46
	OTHER	33.8	46			
		100.0	136		100.0	121
Stayed in AS group		61.8	84		59.5	72

Table 3. 1987 Destination of Persons Who Stayed in the Public Service
Over All 10 Years, 1978 Cohorts (Continued)

1978 Cohort	1987 Destination	Male	Number	1987 Destination	Female	Number
AS-03 30-39	AS3	26.8	61	AS3	31.6	37
	AS4	24.1	55	AS4	18.0	21
	AS5	13.6	31	AS5	13.7	16
	OTHER	35.5	81	OTHER	36.8	43
		100.0	228		100.0	117
Stayed in AS group		74.1	169		70.9	83
PM-01 20-24	PM1	23.1	18	PM2	34.4	32
	PM2	21.8	17	PM1	31.2	29
	PM3	20.5	16	PM3	18.3	17
	PM4	14.1	11	OTHER	16.1	15
	AU2	5.1	4			
	OTHER	15.4	12			
		100.0	78		100.0	93
Stayed in PM group		85.9	67		89.3	83
PM-02 25-29	PM2	49.9	190	PM2	59.0	173
	PM3	25.7	98	PM3	22.9	67
	PM4	11.0	42	PM4	8.9	26
	OTHER	13.4	51	OTHER	9.2	27
		100.0	381		100.0	293
Stayed in PM group		90.8	346		93.9	275
PM-03 30-34	PM3	43.8	135	PM3	39.7	23
	PM4	22.1	68	PM4	19.0	11
	PM5	15.3	47	PM5	10.3	6
	OTHER	18.8	58	PM6	6.9	4
				AS4	5.2	3
				OTHER	19.0	11
		100.0	308		100.0	58
Stayed in PM group		85.1	262		79.3	46

Table 3. 1987 Destination of Persons Who Stayed in the Public Service
Over All 10 Years, 1978 Cohorts (Concluded)

1978 Cohort	1987 Destination	Male	Number	1987 Destination	Female	Number
PM-05 35-39	PM5	44.6	74	PM5	40.0	8
	PM6	24.1	40	EX	20.0	4
	AS7	5.4	9	PM6	15.0	3
	SM	5.4	9	OTHER	25.0	5
	EX	5.4	9			
	OTHER	15.1	25			
		100.0	166		100.0	20
Stayed in PM group		69.3	115		55.0	11
ES-03 25-29	ES4	35.9	19	ES4	30.3	10
	ES5	20.8	11	ES3	15.2	5
	ES6	20.8	11	ES5	15.2	5
	ES3	7.6	4	ES6	9.1	3
	OTHER	15.1	8	OTHER	30.3	10
		100.0	53		100.0	33
Stayed in ES group		86.8	46		72.7	24
ES-05 30-34	ES5	34.5	61	ES5	40.0	10
	ES6	24.9	44	SM	20.0	5
	ES7	9.0	16	ES6	16.0	4
	EX	8.5	15	OTHER	24.0	6
	SM	6.2	11			
	OTHER	17.0	30			
		100.0	177		100.0	25
Stayed in ES group		68.9	122		56.0	14

Table 4. Average Number (1) of Group Changes (2) Per Persons, Stayers in Cohort, 1978-82 and 1982-87

Cohort	1978-82			1982-87		
	Male	Female	Ratio F/M	Male	Female	Ratio F/M
CR-02 20-24 (0-1 yr exp.)	0.31	0.16	0.52	0.29	0.18	0.62
CR-04 25-29 (4-7 yrs exp.)	0.44	0.34	0.77	0.35	0.31	0.89
CR-05 30-34 (4-7 yrs exp.)	0.64	0.56	0.88	0.26	0.35	1.35
AS-02 25-29	0.39	0.31	0.79	0.22	0.38	1.73
AS-03 30-34	0.34	0.29	0.85	0.23	0.17	0.74
AS-03 35-39	0.30	0.29	0.97	0.10	0.18	1.80
PM-01 20-24 (0-2 yrs exp.)	0.10	0.06	0.60	0.17	0.09	0.53
PM-02 25-29 (4-7 yrs exp.)	0.10	0.08	0.80	0.05	0.07	1.40
PM-03 30-34 (4-7 yrs exp.)	0.15	0.26	1.73	0.11	0.16	1.45
PM-05 35-39	0.23	0.55	2.39	0.33	0.60	1.82
ES-03 25-29	0.15	0.36	2.40	0.08	0.15	1.88
ES-05 30-34	0.25	0.16	0.64	0.29	0.40	1.38

(1) This calculation is simply the total number of moves divided by the number of people. Some people may move 2 or more times. This table cannot be interpreted as the proportion of persons moving among groups.

(2) Some group movement may be due to acting duties which move an individual from a group to another temporarily. However, most acting appointments were probably within the same group.

**Chart 7: Percent Growth in Average Equivalent Earnings
of Stayers in Selected Cohorts, 1978-1987**

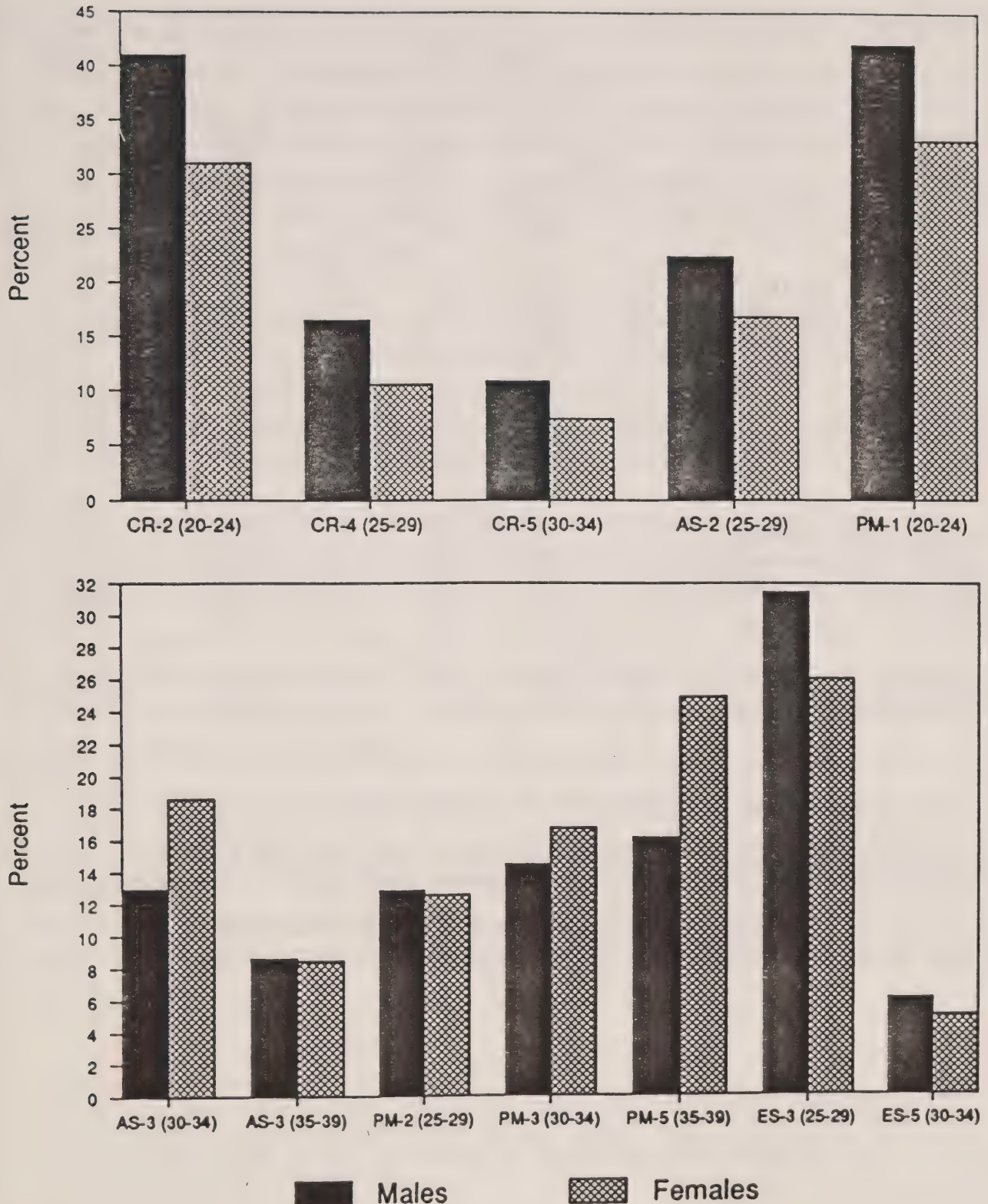


Table 5. Percent Growth in Equivalent Earnings (Pay Rate as of Year End)
Over the 1978-87 Period for Stayers (1)

Cohort	Percent Change (Average for the cohorts)				Ratio F/M	Average Earnings in Base Year (1987 dollars)	
	Male		Female			Male	Female
	%	No.	%	No.		(in thousands)	
CR-02 20-24 (0-1 yr exp.)	41	133	31	347	0.76 *	18.5	18.6
CR-04 25-29 (4-7 yrs exp.)	17	440	11	929	0.65 *	25.7	25.7
CR-05 30-34 (4-7 yrs exp.)	11	132	7	166	0.64	29.1	29.0
AS-02 25-29	22	136	17	121	0.77 *	33.3	32.9
AS-03 30-34	13	131	19	66	1.46	36.0	35.5
AS-03 35-39	9	97	8	51	0.89	35.8	35.6
PM-01 20-24 (0-2 yrs exp.)	42	78	33	93	0.79 *	25.4	25.5
PM-02 25-29 (4-7 yrs exp.)	13	381	13	293	1.00	32.1	31.7
PM-03 30-34 (4-7 yrs exp.)	14	308	17	58	1.21	35.2	34.8
PM-05 35-39	16	166	25	20	1.56 *	45.9	45.3
ES-03 25-29 (2)	31	53	26	33	0.84	39.8	40.1
ES-05 30-34 (2)	6	177	5	25	0.83	57.3	56.9

* statistically significant difference at the .05 level.

- (1) Persons who were in the Public Service as of year end in all years 1978 to 1987. Note that some short absences could take place during the year.
- (2) This is not a statistically significant difference between the growth rate of males and females in these category.

These are the types of occupation in which the majority of women are employed. In 1987, 60% of female public servants were in the administrative support (mainly CR) group, compared to 8% of men.

In the remaining more intermediate cohorts, however, no particularly dominant trend is observed. Women out-performed men in some, and the opposite held in others, and in many cases the observed differences were not statistically significant. Over these seven cohorts, the average growth in the pay-rate was 15% for men and 16% for women. The data in table 5 show the expected relationship between age and pay increases for both sexes, as the increases were much higher among the younger cohorts than among the older.

The distribution of the change in earnings confirms these observations, as the distributions are very similar for men and women. Among the younger cohorts with lower pay levels (mainly CRs), the male distribution is just slightly right of the female, indicating a slightly higher increase for males (chart 9), whereas for the more intermediate cohorts there appears to be virtually no difference (chart 8).

For stayers, movement through an eighteen level scale of promotions¹⁰ in the public service over the nine years generally reflected the movement in salaries just discussed. In the more junior cohorts (CR, AS2, PM1) there were more moves (on average) through the levels by men than by women (table 6). In the more intermediate cohorts, it was a mixed situation, with few statistically significant differences in the number of moves of men and women. As with exits, these moves tended to be concentrated in the earlier part of the period.

Thus, women generally exited permanently from the public service at a higher rate than men, but female leavers had lower growth in annual earnings over the period than did female stayers. For stayers in the Public Service, among the CR and more junior AS and PM cohorts men appeared to move up the ranks faster than women (as indicated by salary growth and level changes), but among other more intermediate cohorts there was little difference.

¹⁰ An eighteen level scale based on pay rate was established (based on the work of Jim Plumpton, Treasury Board) and each group and level was mapped onto this scale based on the top salary in that particular group and level in 1986. Using this mapping, when an individual moved from one level to another in the eighteen level scale a move or promotion is said to have occurred.

Chart 8

DISTRIBUTION OF 1978-87 GROWTH IN P.S. EARNINGS, MEN VS WOMEN

1978 STATUS: AS-3, PH-2, PH-3, PH-5, ES-3 AND ES-5

Stayers

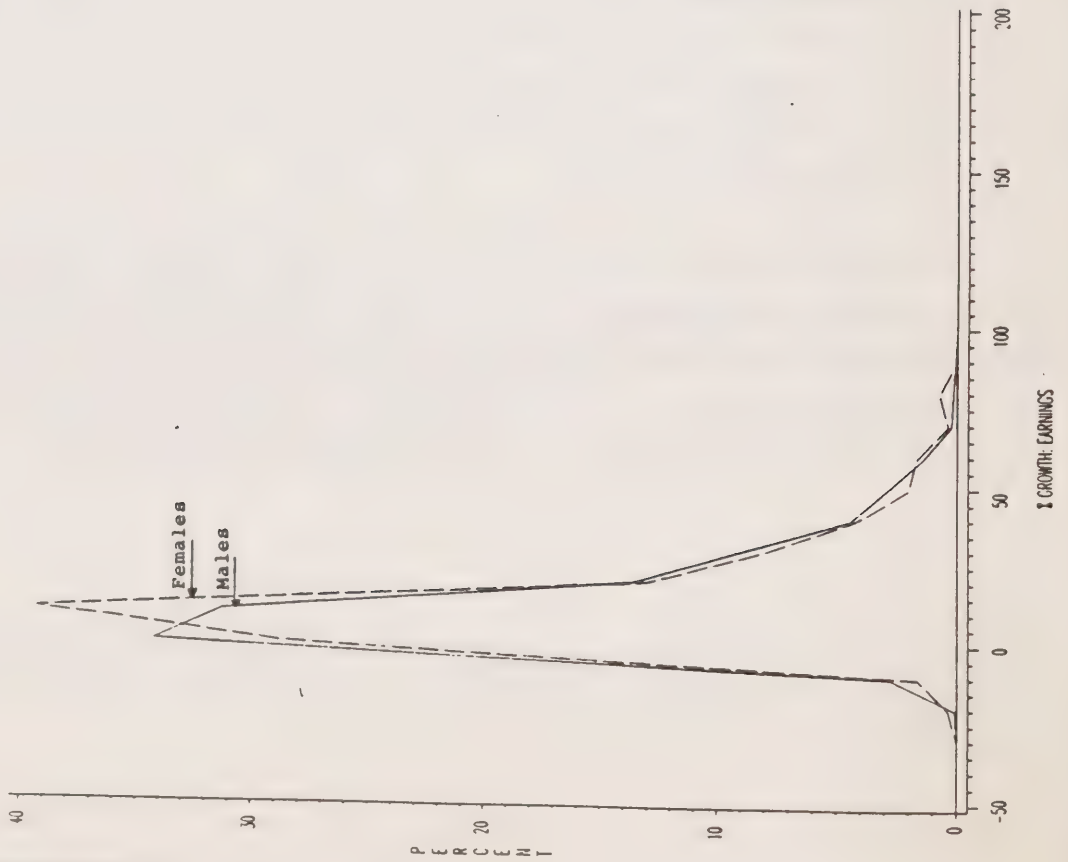


Chart 9

DISTRIBUTION OF 1978-87 GROWTH IN P.S. EARNINGS, MEN VS WOMEN

1978 STATUS: CR-2, CR-4, CR-5, AS-2 AND PH-1

Stayers

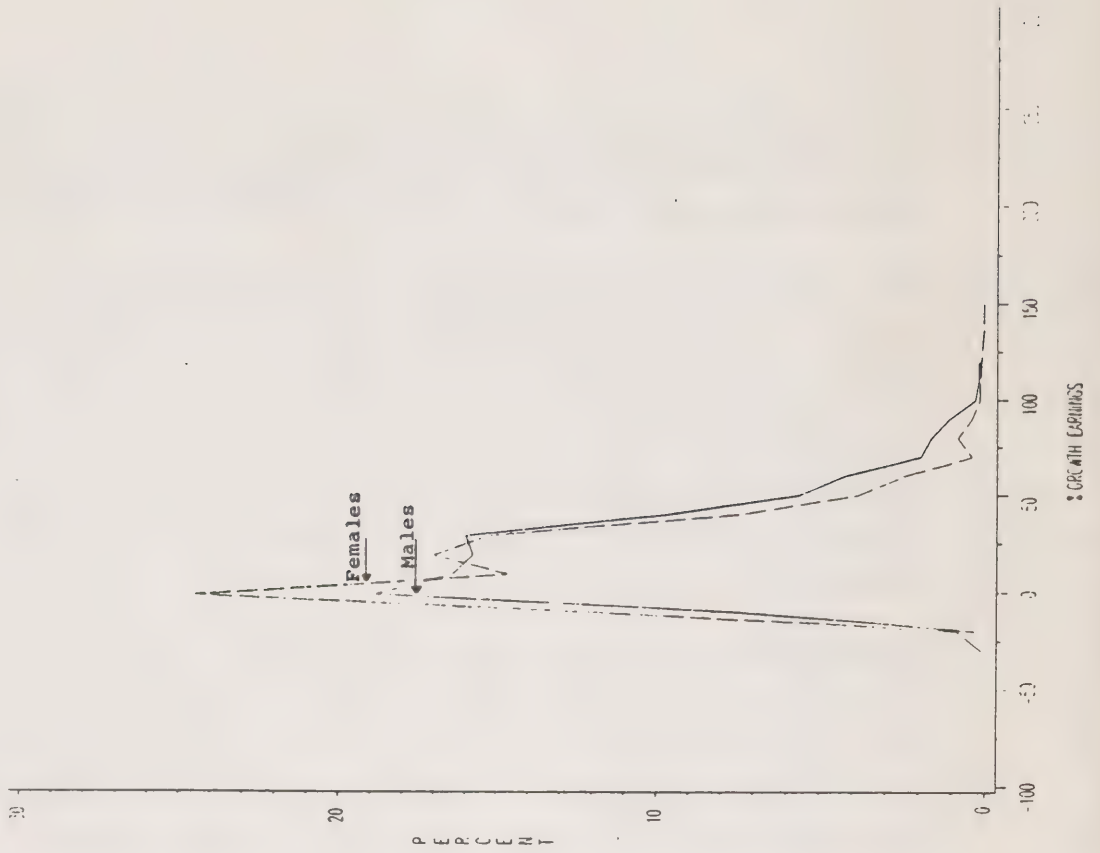


Table 6. Average Number of Moves Per Persons on an Eighteen Level Scale of Promotions in the 1978 Cohorts, 1978-87

Cohort	Number of Moves		Ratio F/M
	Male	Female	
CR-02 20-24 (0-1 yr exp.)	3.4 *	2.8 *	0.82
CR-04 25-29 (4-7 yrs exp.)	1.8 *	1.3 *	0.72
CR-05 30-34 (4-7 yrs exp.)	1.5	1.2	0.80
AS-02 25-29	2.1 *	1.5 *	0.71
AS-03 30-34	1.2	1.3	1.08
AS-03 35-39	0.7	0.6	0.86
PM-01 20-24 (0-2 yrs exp.)	1.9 *	1.2 *	0.63
PM-02 25-29 (4-7 yrs exp.)	0.8 *	0.6 *	0.75
PM-03 30-34 (4-7 yrs exp.)	1.0	1.1	1.10
PM-05 35-39	0.9	1.4	1.56
ES-03 25-29	2.6	2.2	0.85
ES-05 30-34	1.0	1.0	1.00

* indicates the differences were statistically significant at the .05 level.

Findings for the 1982 Cohort

Cohorts of men and women in professional (ES, BI, AU) and administrative and foreign services (AS, PM) groups were selected for 1982. This was done in order to examine various aspects of career development during the more recent past ('82 to '87), since conditions may have changed in the public service since 1978. The CR-04 cohort was added to allow comparisons with a lower paying more junior group which contains very large numbers of women.

Another objective was to increase the sample size for women in the intermediate levels of selected professional groups to allow further analysis. To do this people from all age groups within a group and level were selected, as described earlier in the cohort selection section.

The results from this analysis will not necessarily be the same as that for the 1978 cohorts for two reasons:

- 1) a different time period is covered, and
- 2) the '82 cohort represents the advancement of all people in a particular group and level (say ES-05), whereas the 1978 cohort represents the advancement of a select age group (say 30-34). Since career development is related to age, this will influence the results.

As one would expect, the vast majority of people in the 1982 cohorts were still in the public service by 1987, with relatively few leavers over the 1982 to 1985 period. Table 7 indicates that from 80% to 98% of the cohorts members remained in the public service over the entire period.¹¹ There was little difference between men and women in the proportion staying in the Public Service over this period.¹² It is worth noting that this was possibly an atypical period because of the impact of the 1982 recession on the economy and job availability in the private sector, and hence possibly exits from the public service.

¹¹ The only exceptions was women in the AU-01 cohort, where a relatively low 77% were still in the public service, with 15% exiting permanently.

¹² Note, however, that short spells outside the public service on leave could be missed, as these data refer to employment status as of the end of December.

Table 7. Proportion of the 1982 Cohorts in the Public Service Over All Six Years, (1) 1982-87

Cohort	Male		Female		Ratio F/M
	%	No.	%	No.	
ES-04	98	85	92	80	0.94
ES-05	93	90	90	87	0.97
BI-02	92	55	90	54	0.98
AU-01	90	82	77	70	0.86
AS-03	83	589	81	577	0.98
PM-03	85	855	83	836	0.98
PM-04	85	441	85	441	1.00
CR-04	79	3575	78	3034	0.99

(1) i.e. in the Public Service as of year end (december) of each year. Cohort member could have some short spells out of the Public Service which did not span december.

Table 8. Proportion of the 1982 Cohorts Leaving the Public Service Permanently (1) in 1983, 1984 or 1985

Cohort	Male		Female	
	%	No.	%	No.
ES-04	-	-	-	-
ES-05	5	5	5	5
BI-02	-	-	5	3
AU-01	-	-	15	14
AS-03	9	67	9	66
PM-03	8	76	8	78
PM-04	8	41	7	35
CR-04	12	469	12	450

(1) i.e. left during the 1983 to 1985 period and not in the Public Service in 1986 or 1987.

With the exception of the AU-01 and CR-04 cohorts the number of permanent leavers from the 1982 cohorts was relatively small, (between 5% to 9% in most cases) and showed little difference between men and women where the numbers were large enough to make a comparison, (table 8).

The majority who stayed in the Public Service did not advance rapidly and were in the same group and level in 1987 as in 1982; from 60% to 70% for most cohorts, except for the ES-04 and AU-01 where a smaller percentage stayed in those groups and levels (table 9). Again, there was little difference between men and women in the proportion staying at the same level over this period.

In the professional and administrative cohorts selected there was little difference between men and women in the growth in average equivalent earnings (pay rate as of year end) over the 1982-87 period. This suggests there was little difference in the rate of advancement. Averaged across all seven professional and administrative cohorts, the growth in pay was marginally higher for women (at 4.2%) than for men (at 3.6%). Although statistically significant, this difference is very small, and not particularly meaningful. This is confirmed by charts 10 and 11, which show little difference in distribution of growth in pay for men and women.

Among the CR-04 cohort, male stayers who had an average 1.9% growth in real earnings, appeared to do slightly better than their female counterparts (0% change) during this period. A similar observation was made earlier for the entire 1978-87 period.

Table 9. Destination in 1987 of 1982 Cohorts, Stayers, By Group and Level

1982 Cohort	1987 Destination	Male		Female	
		%	No.	%	No.
ES-04	ES-04	40	34	42	34
	ES-05	31	26	22	18
	ES-06	7	6	10	8
ES-05	ES-05	62	56	63	55
	ES-06	19	17	17	15
BI-02	BI-02	65	36	74	40
	BI-03	16	9	18	10
AU-01	AI-01	35	29	49	34
	AU-02	41	34	30	21
	AU-03	17	14	14	10
AS-03	AS-03	60	355	60	348
	AS-04	18	107	16	90
PM-04	PM-04	59	262	62	274
	PM-05	17	75	14	62
	PM-06	2	8	3	13
CR-04	CR-04	70	2139	76	2293
	CR-05	6	187	6	189
	PM-01	4	134	3	105
	PM-02	3	107	2	63
	AS-01	2	63	2	56
	AS-02	2	62	2	48
PM-03	PM-03	65	558	65	540
	PM-04	15	126	18	150
	PM-05	3	25	2	20
	AU-01	2	19	1	12
	AU-02	4	34	1	9

Table 10. Percent Growth in Equivalent Earnings (Pay Rate as of Year End)
Between 1982 and 1987, Stayers in 1982 Cohort

Cohort	Percent Growth		Average Earnings in Base Year for Cohort	
	Male	Female	Male	Female
(in thousands)				
ES-04	11.6	11.7	46.8	47.0
ES-05	2.9	5.4	55.7	54.2
BI-02	7.4	8.1	40.2	40.2
AU-01	4.8	4.2	37.1	36.6
AS-03	3.1	3.9	36.1	35.7
PM-03	2.0	2.4	36.8	36.6
PM-04	5.0	6.1	40.3	39.6
CR-04	1.9 *	0.0	25.7	25.7

* indicates the difference was statistically significant at the .05 level.

Chart 10

DISTRIBUTION OF 1982-87 GROWTH IN P.S. EARNINGS, MEN VS WOMEN

1982 STATUS AS-3, PM-3 AND PM-4

Stayers

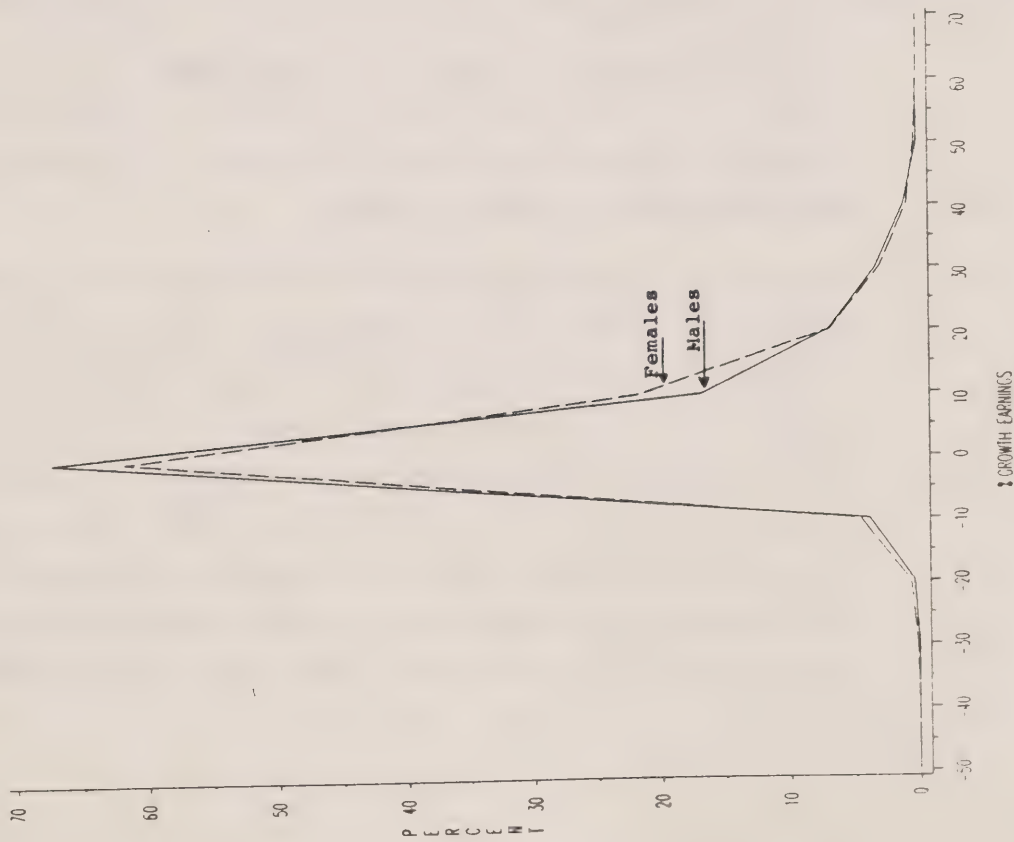
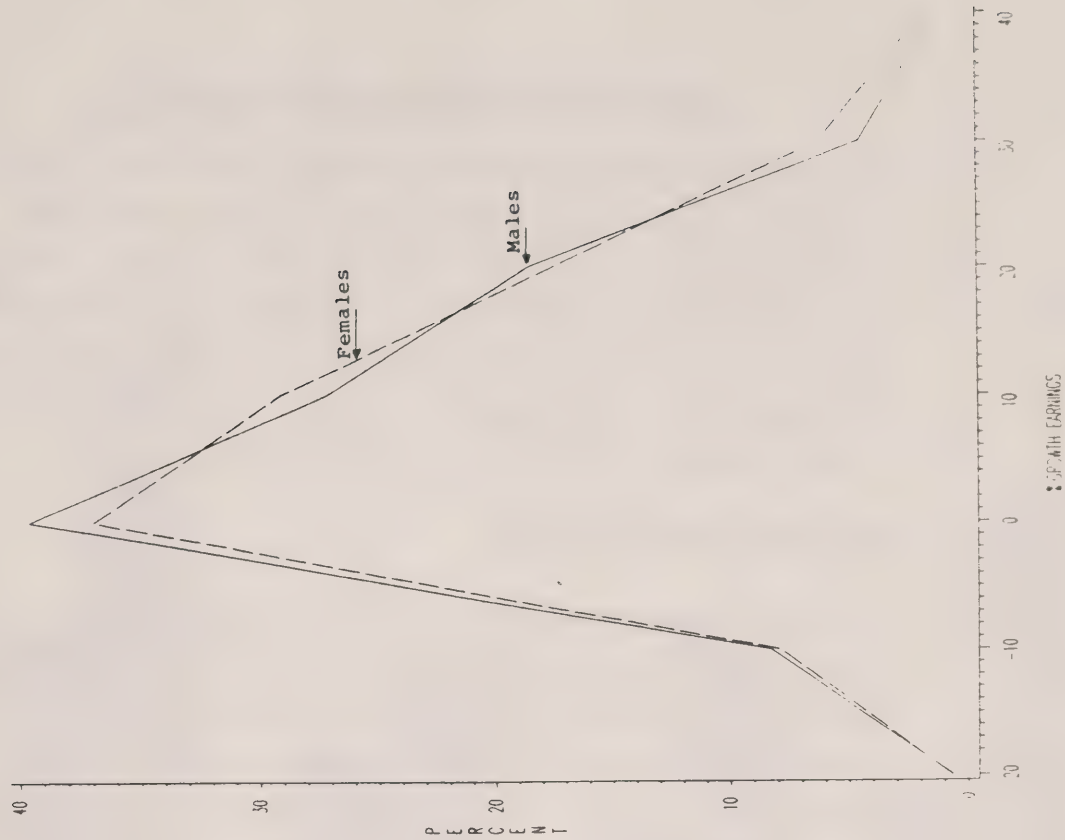


Chart 11

DISTRIBUTION OF 1982-87 GROWTH IN P.S. EARNINGS, MEN VS WOMEN

1982 STATUS ES-4, ES-5, BE-2 AND AU-1

Stayers



Findings for the Management Cohorts of 1987

Four cohorts of managers in 1987 were selected, and information on their career movement over the 1978-87 period produced. The four cohorts were: SM ages 30-39, SM ages 40-44, EX-1 ages 30-49, and EX-2 ages 30-49. These cohorts are of interest because they represent the higher end of the occupational scale (as measured by pay) and it is of interest to determine the rate at which men and women are moving into them. The management groups represent a very small proportion of all public servants, however (0.6% of women and 3.5% of men).

Entrants to the Public Service After 1979

Members of the managerial cohorts who were not in the Public Service in 1978 and 1979 but entered subsequently are referred to as entrants (as opposed to stayers who were in the public service all ten years). Some of these individuals could have been in the public service prior to 1978, but their absence from it would have had to have been substantial (2 years or more), and it is unlikely their numbers would be large.

A substantially larger proportion of women than men in the managerial cohorts were entrants since 1978. The (unweighted) average across the four cohorts of the proportion who were entrants was 21 percent for women, 11 percent for men. This suggests that recruitment outside the public service - or possibly returns to the public service after more than a two years exit - played a larger role among the cohorts of women who made it into the management category than among their male counterparts. This may also be true for other occupational groups, but the data to determine this were not readily available.

It is of interest to determine whether the women who entered (or re-entered) the public service in 1980 or later were primarily in paid employment in 1978, or employed in some other activity such as child care, taking advanced education or another activity. To obtain some indirect evidence information on this question, their annual employment earnings in that year were examined. Taking all four together cohorts a larger share of women (22%) than men (15%) who were outside the public service had little (less than \$2000) or no employment earnings in 1978. Among those who had employment earnings, they were much lower among women than men. The median was \$47,000 for men (in 1987 dollars) and \$36,000 for women. The bottom

**Chart 11b: Percent of 1987 Cohorts
Entering the Public Service
after 1979, SM and EX Groups**

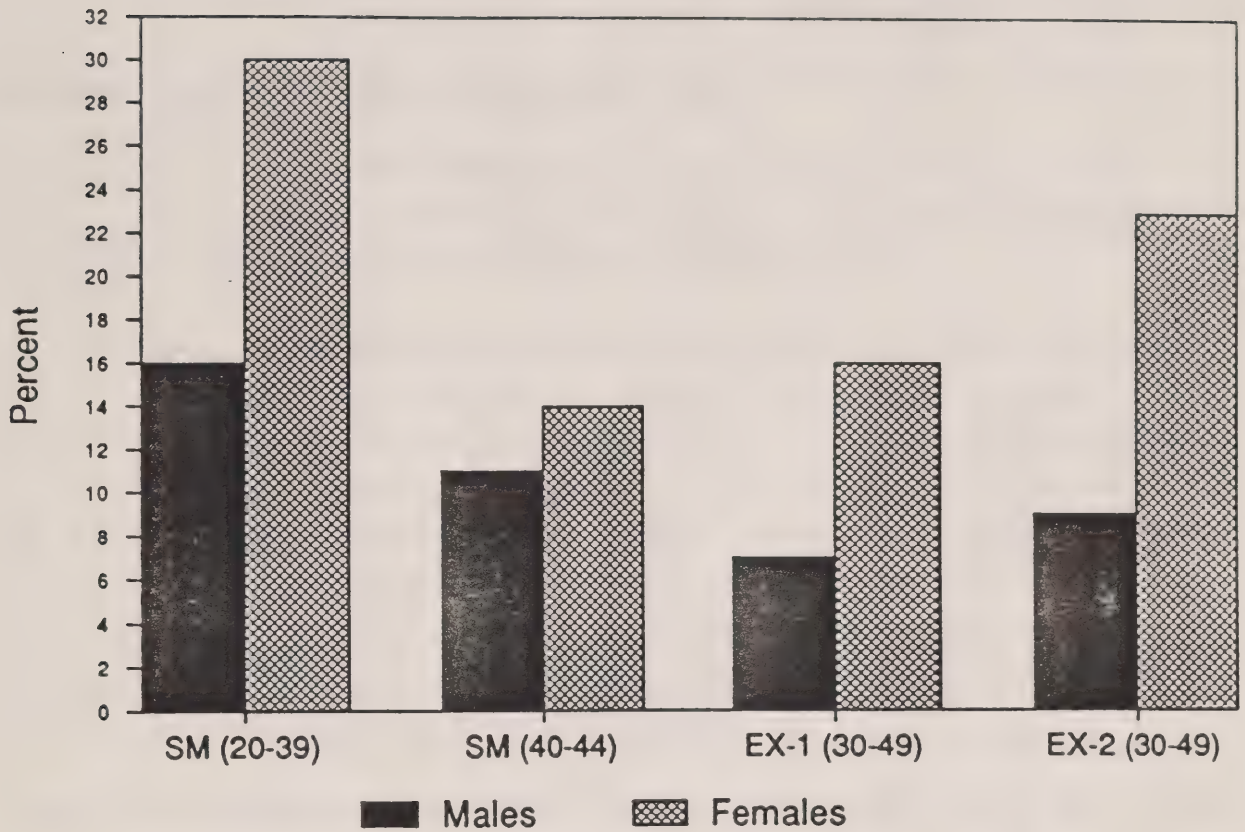


Table 11. Proportion of SM and EX Cohorts Entering Public Service
in 1980 or Later (1)

Cohort		Male		Female	
		Percent Entering	Number Entering	Percent Entering	Number Entering
SM	30-39	16 *	37	30 *	24
SM	40-44	11	46	14	11
EX-01	30-49	7 *	38	16 *	12
EX-02	30-49	9 *	36	23 *	13
Unweighted average		11		21	

* statistically significant difference at the .05 level.

(1) i.e. not in the Public Service in 1979, but entered after that time.

twenty-five percent of women earned below \$14,000, while the corresponding cut-off for males was \$32,000. This suggests many women may have had more part-time paid employment and possibly were involved in other activities such as child care before they entered (or re-entered) the public service and rose to management level jobs. Some may also simply have had lower paying full-time jobs.

Managers Who Were in the Public Services All Ten Years

- . Stayers¹³ greatly outnumbered entrants to management groups in our cohorts. Averaged across the four cohorts, 84% of men and 71% of women who reached the management levels were in the public service all ten years.
- . Among the stayers, a very broad range of occupational groups served as the base for the movement into management, for both men and women. An examination of the groups in which the managers of 1987 were located in 1978 shows that the PM group stands out for both men and women, as to a lesser degree does the FS and ES groups for men (particularly leading to the EX group), and the AS and PE groups for women. But even these three groups for each gender still account for a relatively small proportion of all managers (40% average across cohorts unweighted for men, and 50% for women). The remainder were in a wide variety of occupational groups, many with numbers too few to be included (table 12).
- . The women who had achieved the EX1 and 2 group by 1987 moved through the ranks more quickly than the men of roughly the same age who had achieved the same level. This is indicated by the change in earnings, the number of moves up the eighteen level scale, and the number of moves among groups. Among those reaching the SM level, women appear to have moved up slightly faster, but the difference is not great.
- . In all four management cohorts the growth in average equivalent earnings (pay rate as of year end) was higher for women than men who were in the public service all ten years. This means that women started from a lower base earnings in 1978 than men and rose to the same SM and EX levels (table 13). This was particularly true in the

¹³ This means they were in the public service as of the end of each year. Some short absences could have taken place during the year.

Table 12. Group Occupied in 1978 by Stayers in the Four 1987 Management Cohorts

1987 Cohort	1978 Source Group	Male	Number	1978 Source Group	Female	Number
SM 20-39	PM	17.7	30	PM	29.1	16
	AS	11.2	19	PE	16.4	9
	ES	8.2	14	ES	12.7	7
	FI	8.2	14	AS	9.1	7
	PE	7.1	12	OTHER	32.7	16
	EN	7.1	12			
	OTHER	40.6	69			
		100.0	170		100.0	55
SM 40-44	PM	24.4	83	AS	25.9	15
	AS	8.2	28	PM	13.8	8
	PE	7.4	25	PE	8.6	5
	CO	6.2	24	IS	8.6	5
	ES	5.9	24	ED	6.9	4
	EN	4.4	19	CS	5.2	3
	FI	4.7	19	LS	5.2	3
	OTHER	38.8	118	OTHER	25.9	15
		100.0	340		100.0	58
EX-01 30-49	FS	23.7	118	PM	23.7	14
	PM	16.2	73	AS	17.0	10
	ES	11.8	53	FS	15.3	9
	AS	8.2	37	PE	13.6	8
	OTHER	40.1	170	ES	5.1	3
				OTHER	25.4	15
		100.0	451		100.0	59
EX-02 30-49	PM	15.9	56	PM	24.3	9
	ES	15.9	56	ES	16.2	6
	FS	14.5	51	AS	13.5	5
	AS	6.2	22	FS	8.1	3
	CO	6.2	22	PE	8.1	3
	PE	5.4	19	OTHER	29.7	11
	SE	5.4	19			
	OTHER	30.6	108			
		100.0	353		100.0	37

Note: the SM and EX groups did not exist in 1978, and the higher levels of some groups were equivalent to them. The equivalent levels of the PE, FI, PM, AS, CO, EN, FS and ES groups have been excluded as sources in 1978.

EX categories, with the difference being very small in the SM cohorts, and not statistically significant. The average growth in equivalent earnings across the four cohorts was 38% for women, 29% for men.¹⁴

- . The difference between the male and female stayers in the growth rate of equivalent earnings was seen at all parts of the distribution, as shown in charts 13 and 14.
- . The number of moves through the eighteen level scale described earlier was also greater for female than male stayers. Across the four cohorts, the average number of moves per person up the scale over the ten years was 3.7 for women, and 2.9 for men (table 14). Looking at the number of occupational group changes (e.g., move from PM to EX) one sees a similar picture. Generally female stayers in these cohorts changed groups more often than men, particularly during the 1982-87 period, when they changed groups 28% more frequently than men on average across the four cohorts (table 15).

In summary, these observations indicate that among the cohorts that had achieved a management position by 1987:

- Women were more likely than men to have entered the public service after 1980 (or re-entered after at least a two year exit);
- a wide range of occupational groups served as the source of 1987 managers, but PM, AS and ES stood out for men, and PM, AS and PE stood out for women, and finally
- among the stayers who achieved a management position, women appeared to move up the ranks faster than men, particularly among those reaching the EX group.
- This analysis does not address the issue of the extent to which women have "caught up" to their male counterparts. This analysis deals with the flows of men and women into the management level, and the rate at which that movement took place. It does not examine changes in the level or number of men and women in the management category. That is being done elsewhere for the task force.

¹⁴ Some of this difference could have been due to the age differential in the cohorts: women were slightly younger than men and younger persons tend to increase their earnings at a faster rate. The age differences were not great, however, the average age in the four cohorts were: SM 30-39 - men 37.2 and women 36.7; SM 40-44 - 42.0 and 42.0; EX 01 30-49 - 43.0 and 41.8; EX 02 30-39 - 44.0 and 42.3. Regression analysis in which age was controlled still indicated a significant difference in earnings growth between men and women in the EX category. Information on other factors which could account for such differences are not available in this data source.

Chart 12: Percent Growth in Average Equivalent Earnings
of Stayers in Selected Management Cohorts,
1978 - 1987

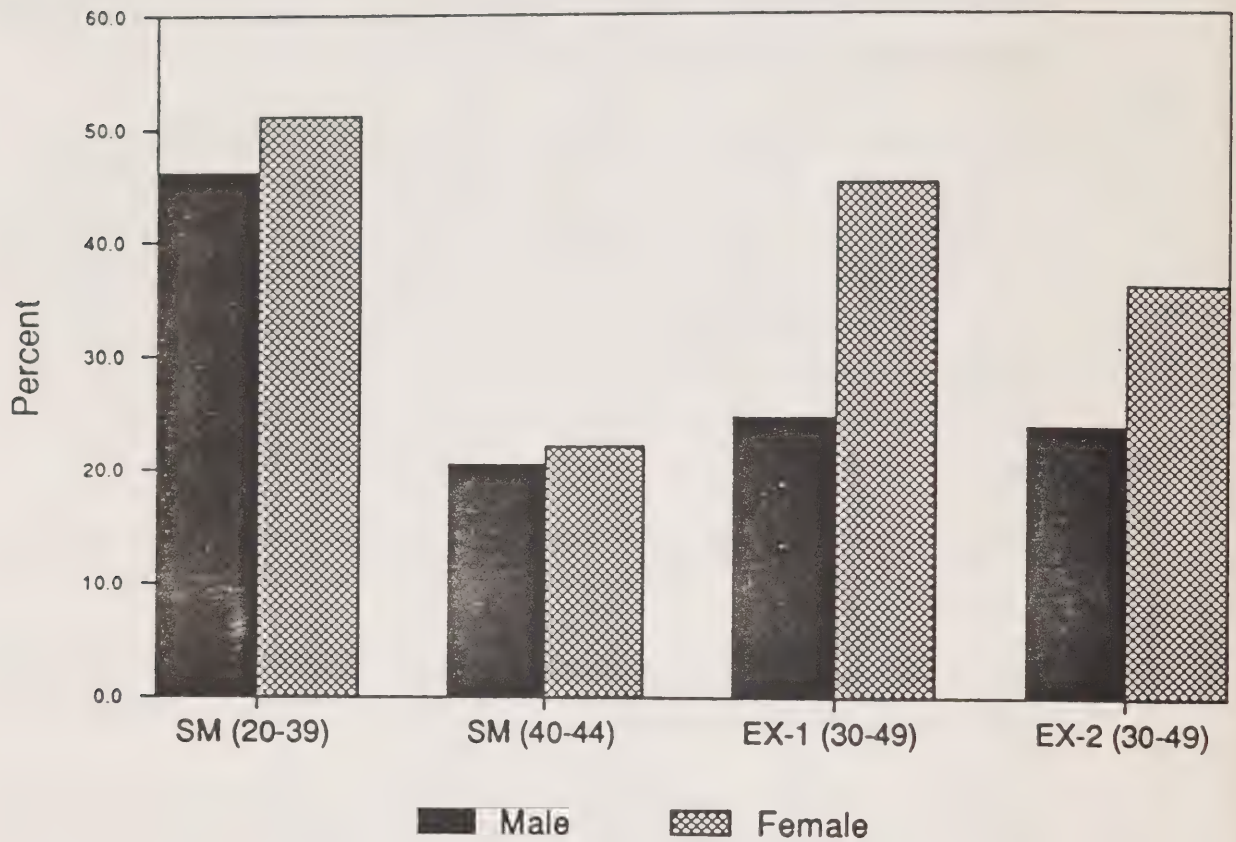


Chart 13

DISTRIBUTION OF 1978-87 GROWTH IN P.S. EARNINGS, MEN VS WOMEN

1987 STATUS: SM

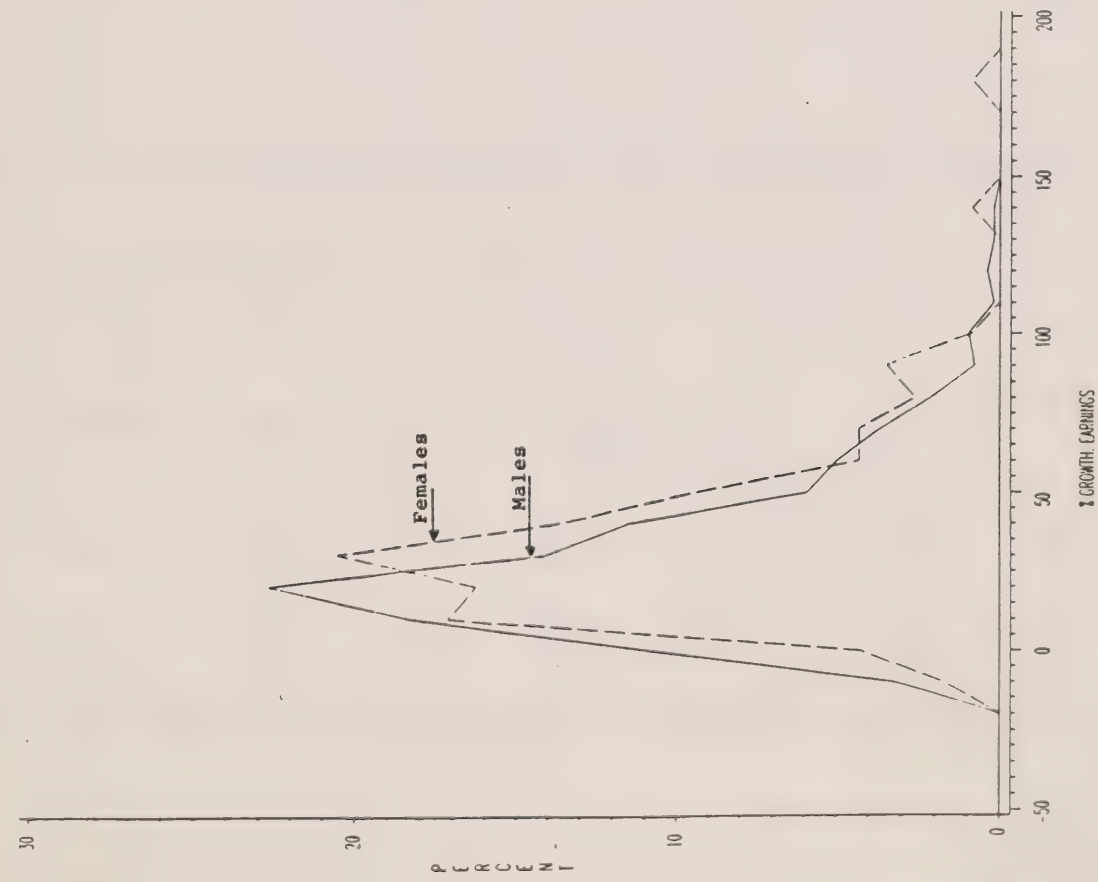


Chart 14

DISTRIBUTION OF 1978-87 GROWTH IN P.S. EARNINGS, MEN VS WOMEN

1987 STATUS: EX-1 AND EX-2

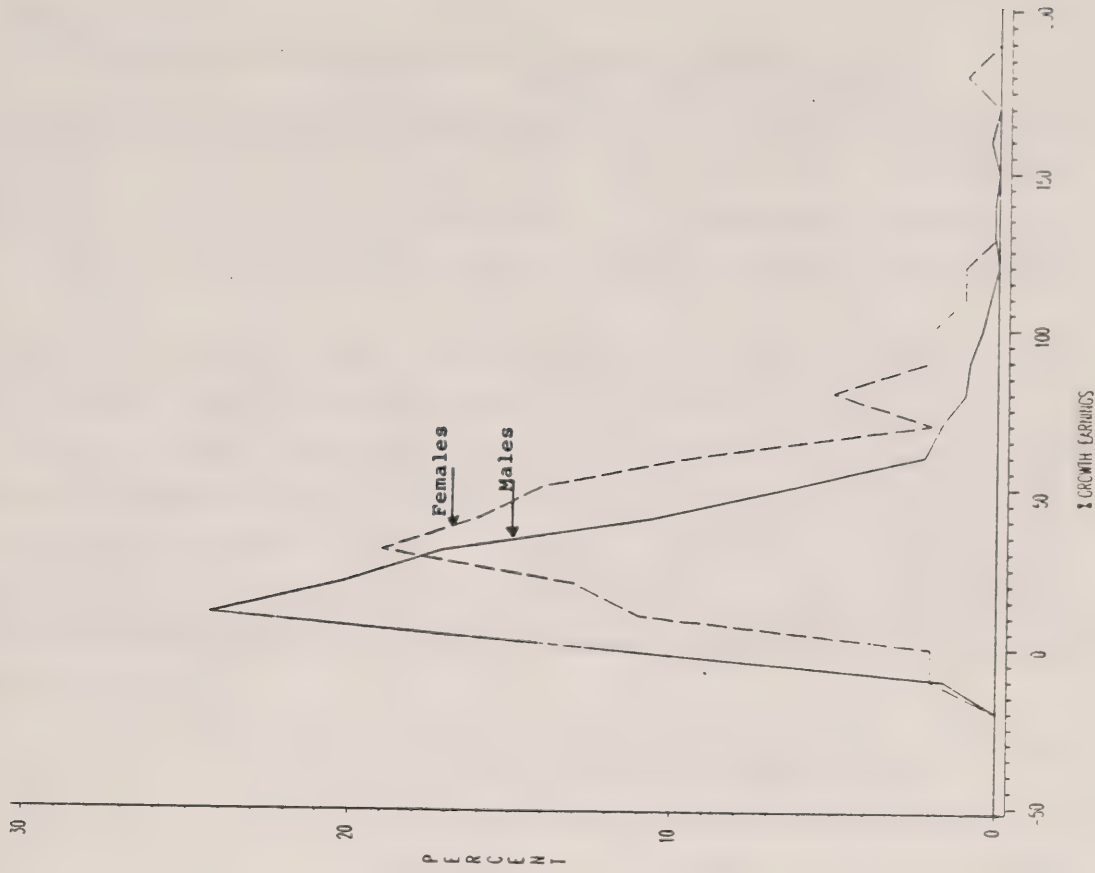


Table 13. Average Growth in Equivalent Earnings in the Managerial Cohorts, Stayers, 1978-87

Cohort		Male		Female		Average Earnings in 1978 Cohort	
						Male	Female
		%	No.	%	No.	(in thousands)	
SM	20-39	46	161	51	53	45.0	42.5
SM	40-44	20	328	22	53	53.6	51.6
EX-01	30-49	25 *	417	45 *	58	56.9	49.4
EX-02	30-49	24 *	326	36 *	32	62.1	56.1

* indicates the differences were statistically significant at the .05 level.

Table 14. Average Number of Moves Per Persons on an Eighteen Level Promotions Scale, Stayers, 1978-87

Cohort		Male	Female
SM	20-39	3.7	4.2
SM	40-44	2.3 *	3.0 *
EX-01	30-49	2.7 *	3.8 *
EX-02	30-49	3.0 *	3.8 *

* indicates the differences were statistically significant at the .05 level.

Table 15. Average Number of Moves Among Occupational Groups, Stayers, 1978-87

Cohort		1978-82		Ratio F/M	1982-87		Ratio F/M
		Male	Female		Male	Female	
SM	20-39	0.57	0.48	0.84	1.03	1.12	1.09
SM	40-44	0.56	0.64	1.14	0.85	0.95	1.12
EX-01	30-49	0.55	0.61	1.11	1.06	1.39	1.31 *
EX-02	30-49	0.78	0.68	0.87	0.67	1.07	1.60 *

* indicates the differences were statistically significant at the .05 level.

Concluding Remarks

This paper has examined the promotion and exit patterns of men and women in the Canadian Public Service over the 1978-87 period. The goal was to look at the "flows" among different occupational levels and to the outside using longitudinal data. This analysis does not comment on the number of women at the various levels (ie stock counts), but rather focuses on flows among the levels.

The data from the "indicative" cohorts selected suggest that the relative movement of women and men varies depending upon the occupational levels. In general, in the administrative support occupations (mainly CR) men advanced at a slightly faster rate than women. In the lower and middle level professional and administrative groups examined there appeared to be little difference between men and women in their rate of advancement. As just mentioned, in these senior management occupations the women who have achieved that level moved through the ranks faster than their male counterparts. There are relatively few women in the management categories, with the majority (60%) in the administrative support area.

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